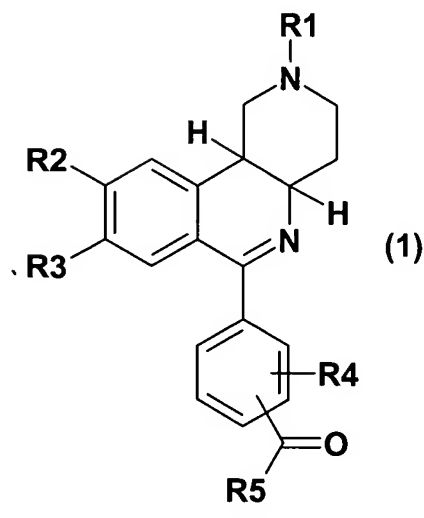


# Appendix A

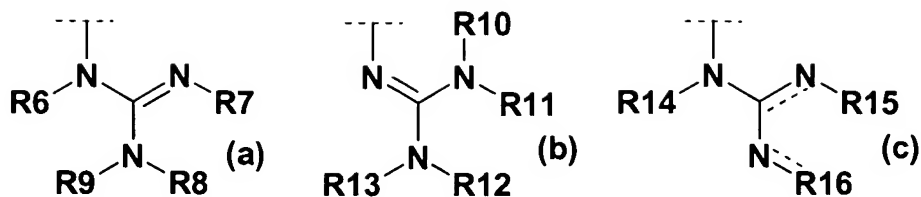
## Claim Amendments

1. (Canceled)
2. (Canceled)
3. (Currently amended) A compound of formula 1



~~according to claim 1~~ in which

- R1 is methyl,
- R2 is 1-4C-alkoxy,
- R3 is 1-4C-alkoxy,
- R4 is hydrogen,
- R5 is a radical of the formulae (a), (b) or (c)



in which

if R5 is a radical of the formula (a),

either

R6 is hydrogen,

R7 is hydrogen,

R8 is hydrogen or methoxy-2-4C-alkyl,

R9 is methoxy-2-4C-alkyl,

or

R6 is hydrogen,

R7 is hydrogen, and

R8 and R9, together and including the nitrogen atom to which both are bonded, are a piperazin-1-yl radical substituted in 4-position by R17, a tetrahydroisoquinolin-2-yl, tetrahydro-6,7-dimethoxyisoquinolin-2-yl, 3,5-dimethyl-pyrazol-1-yl, pyrazol-1-yl, azocan-1-yl, azonan-1-yl, azecan-1-yl, 4-benzyl-piperidin-1-yl or thiomorpholin-4-yl radical,

or

R6 is hydrogen,

R7 is hydrogen,

R8 is hydrogen, and

R9 is cyano, Aryl1, morpholin-4-ylethyl, naphthyl, phenyl, phenyl-1-2C-alkyl, 3,4-dimethoxybenzyl or 3,4-dimethoxyphenylethyl,

in which

if R5 is a radical of the formula (b),

R10 is hydrogen,

R11 is hydrogen, and

R12 and R13, together and including the nitrogen atom to which both are bonded, are a piperazin-1-yl radical substituted in 4-position by R17, a tetrahydroisoquinolin-2-yl, tetrahydro-6,7-dimethoxyisoquinolin-2-yl, 4-benzyl-piperidin-1-yl, 3,5-dimethyl-pyrazol-1-yl, pyrazol-1-yl, azocan-1-yl, azonan-1-yl or azecan-1-yl radical,

in which

if R5 is a radical of the formula (c),

R14 is hydrogen, and

R15 and R16, together and with inclusion of the N-C(-)-N structure to which they are bonded are Aryl2,

Aryl1 is 4-methylthiazol-2-yl, benzimidazol-2-yl or benzothiazol-2-yl,

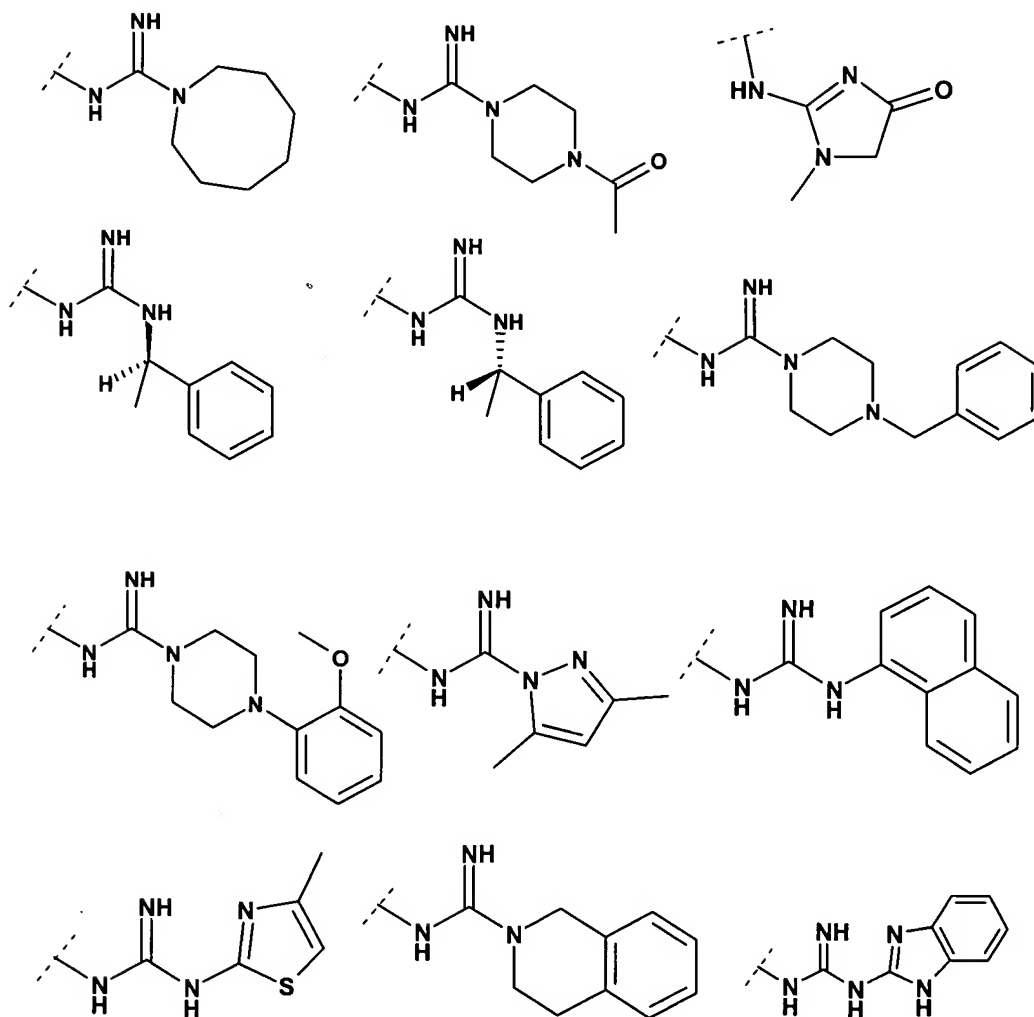
Aryl2 is 1-methyl-4-oxo-4,5-dihydro-1H-imidazol-2-yl, imidazol-2-yl or benzimidazol-2-yl,

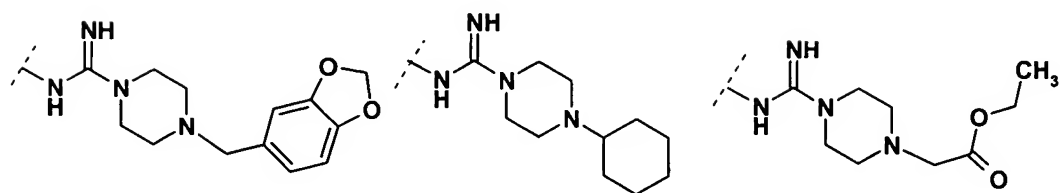
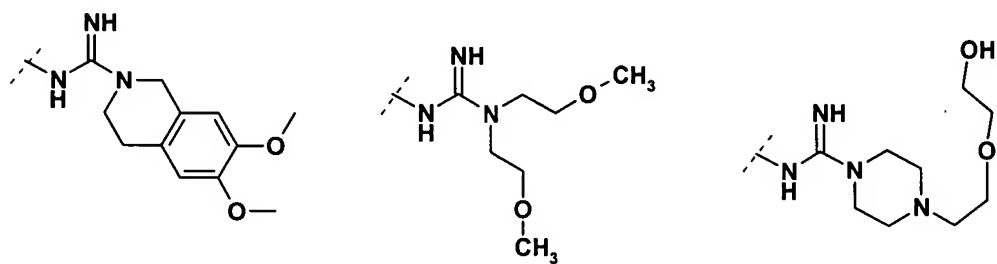
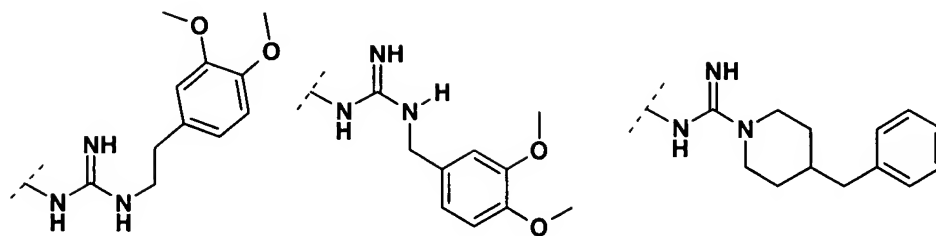
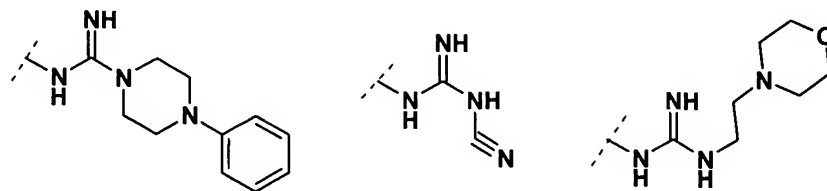
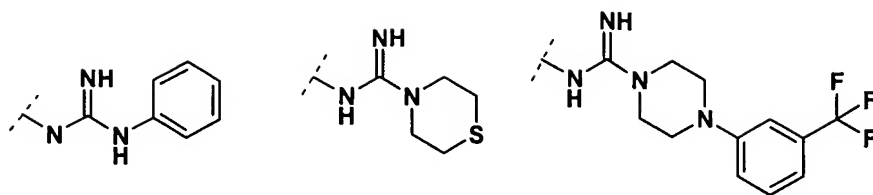
R17 is acetyl, (2-hydroxyethoxy)ethyl, cyclohexyl, ethoxycarbonylmethyl, phenyl, [benzo(1,3)dioxol]-5-ylmethyl, 2-methoxyphenyl, 3-trifluoromethylphenyl, 4-acetylphenyl or benzyl,

~~or a hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or an N-oxide, enantiomer, or E/Z isomer or tautomer of this compound, or a salt thereof.~~

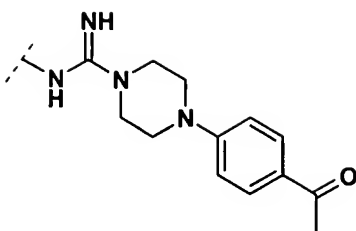
4. (Currently amended) A compound of formula 1 according to claim 3 [[1]] in which

- R1 is methyl,  
R2 is methoxy or ethoxy,  
R3 is methoxy,  
R4 is hydrogen,  
R5 is a radical selected from the group consisting of





and



or a ~~hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or an N-oxide, enantiomer, or~~ E/Z isomer ~~or tautomer of this compound, or a salt thereof.~~

5. (Currently amended) A compound of formula 1 according to claim 3 ~~[[1]]~~ selected from the group consisting of

4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-N-(1-methyl-4-oxo-4,5-dihydro-1H-imidazol-2-yl)-benzamide;

N-(1-Amino-1-azocan-1-yl-methylene)-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-[1-(4-Acetyl-piperazin-1-yl)-1-amino-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-N'-((R)-1-phenyl-ethyl)-guanidine;

N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-N'-((S)-1-phenyl-ethyl)-guanidine;

N-[1-Amino-1-(4-benzyl-piperazin-1-yl)-methylene]-4-  
((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-  
hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;  
N-{1-Amino-1-[4-(2-methoxy-phenyl)-piperazin-1-yl]-  
methylene}-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-  
1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-  
benzamide;  
N-[1-(3,5-Dimethyl-pyrazol-1-yl)-1-imino-methyl]-4-  
((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-  
hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;  
N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-  
1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-  
phenyl]-methanoyl}-N'-naphthalen-1-yl-guanidine;  
N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-  
1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-  
phenyl]-methanoyl}-N'-(4-methyl-thiazol-2-yl)-guanidine;  
N-[1-(tetrahydroisoquinolin-2-yl)-1-imino-methyl]-4-  
((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-  
hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;  
N-(1H-benzoimidazol-2-yl)-N'-{1-[4-((4aR,10bS)-9-ethoxy-8-  
methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-  
benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-  
guanidine;  
N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-  
1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-  
phenyl]-methanoyl}-N'-phenyl-guanidine;  
N-(1-Amino-1-thiomorpholin-4-yl-methylene)-4-((4aR,10bS)-9-  
ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-  
benzo[c][1,6]naphthyridin-6-yl)-benzamide;  
N-{1-Amino-1-[4-(3-trifluoromethyl-phenyl)-piperazin-1-yl]-  
methylene}-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-

1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-[1-Amino-1-(4-phenyl-piperazin-1-yl)-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-N'-cyano-guanidine;

N-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-N'-(2-morpholin-4-yl-ethyl)-guanidine;

N-[2-(3,4-Dimethoxy-phenyl)-ethyl]-N'-{1-[4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-guanidine;

N-(3,4-Dimethoxy-benzyl)-N'-{1-[4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-guanidine;

N-[1-Amino-1-(4-benzyl-piperidin-1-yl)-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-[1-Amino-1-(6,7-dimethoxy-3,4-dihydro-1H-isoquinolin-2-yl)-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N'-{1-[4-((4aR,10bS)-9-Ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoyl}-N,N-bis-(2-methoxy-ethyl)-guanidine;

N-(1-Amino-1-{4-[2-(2-hydroxy-ethoxy)-ethyl]-piperazin-1-yl}-methylene)-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-



1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-[1-Amino-1-(4-benzo[1,3]dioxol-5-ylmethyl-piperazin-1-yl)-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

N-[1-Amino-1-(4-cyclohexyl-piperazin-1-yl)-methylene]-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

[4-(1-Amino-1-{1-[4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-phenyl]-methanoylimino}-methyl)-piperazin-1-yl]-acetic acid ethyl ester;

N-{1-[4-(4-Acetyl-phenyl)-piperazin-1-yl]-1-amino-methylene}-4-((4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydro-benzo[c][1,6]naphthyridin-6-yl)-benzamide;

or a ~~hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or an N-oxide, enantiomer, or E/Z isomer or tautomer~~ of this compound, or a salt thereof.

6. (Canceled)

7. (Canceled)

8. (Currently amended) A compound of formula 1 according to claim 3 ~~[[1]]~~, in which

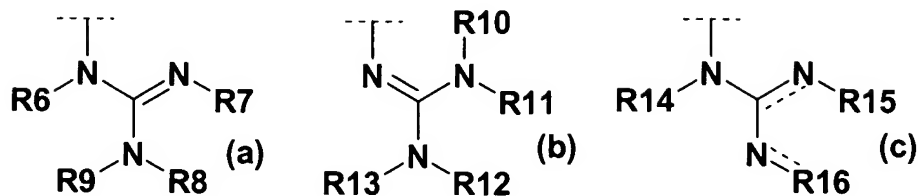
R1 is methyl,

R2 is 1-4C-alkoxy,

R3 is 1-4C-alkoxy,

R4 is hydrogen,

R5 is a radical of the formulae (a), (b) or (c)



in which

if R5 is a radical of the formula (a),

either

R6 is hydrogen,

R7 is hydrogen, and

R8 and R9, together and including the nitrogen atom to which both are bonded, are a piperazin-1-yl radical substituted in 4-position by R17, a tetrahydroisoquinolin-2-yl, 3,5-dimethyl-pyrazol-1-yl, pyrazol-1-yl, azocan-1-yl, azonan-1-yl or azecan-1-yl radical,

or

R6 is hydrogen,

R7 is hydrogen, and

R8 is hydrogen or 1-4C-alkyl, and

R9 is Aryl1, naphthyl or phenyl-1-2C-alkyl,

in which

if R5 is a radical of the formula (b),

R10 is hydrogen or 1-4C-alkyl,

R11 is hydrogen or 1-4C-alkyl, and

R12 and R13, together and including the nitrogen atom to which both are bonded, are a piperazin-1-yl radical substituted in 4-position by R17, a tetrahydroisoquinolin-2-yl, 3,5-dimethyl-pyrazol-1-yl, pyrazol-1-yl, azocan-1-yl, azonan-1-yl or azecan-1-yl radical,

in which

if R5 is a radical of the formula (c),

R14 is hydrogen, and

R15 and R16, together and with inclusion of the N-C(-)-N structure to which they are bonded are Aryl2,

Aryl1 is 4-methylthiazol-2-yl or benzothiazol-2-yl,

Aryl2 is 1-methyl-4-oxo-4,5-dihydro-1H-imidazol-2-yl, imidazol-2-yl, 4-methyl-imidazol-2-yl, 4-ethyl-benzimidazol-2-yl, 4-acetyl-imidazol-2-yl, benzimidazol-2-yl, 1-methyl-benzimidazol-2-yl, 1-ethyl-benzimidazol-2-yl or 5,6-dimethyl-benzimidazol-2-yl,

R17 is acetyl, 2-methoxyphenyl or benzyl,

~~or a hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or an N-oxide, enantiomer, or E/Z isomer or tautomer of this compound, or a salt thereof.~~

9. (Currently amended) A compound of formula 1 according to claim 3 [[1]], in which

R1 is methyl,

R2 is methoxy or ethoxy,

R3 is methoxy,

R4 is hydrogen,

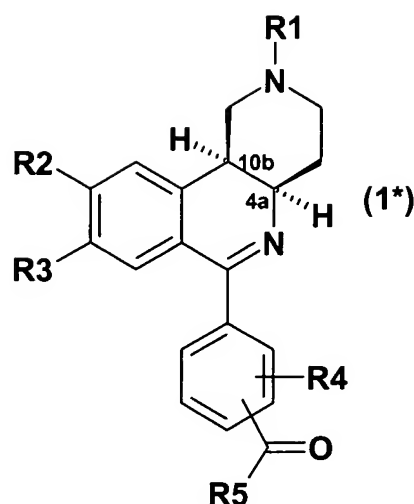
R5 is N-(1-methyl-4-oxo-4,5-dihydro-1H-imidazol-2-yl)-amino, N-(1-amino-1-azocan-1-yl-methylene)-amino, N-[1-

(4-acetylpiperazine-1-yl)-1-amino-methylene]-amino, N-  
(N'-(R)-1-phenylethyl)guanidiny], N-(N'-(S)-1-  
phenylethyl)guanidiny], N-[1-amino-1-(4-  
benzylpiperazine-1-yl)-methylene]-amino, N-[1-amino-1-  
(2-methoxy-phenyl-piperazin-1-yl)-methylene]-amino, N-  
[1-(3,5-dimethyl-pyrazol-1-yl)-1-imino-methyl]-amino,  
N-(N'-naphthalene-1-yl)guanidiny], N-(N'-4-methylthia-  
zol-2-yl)guanidiny] or N-[1-(tetrahydroisoquinoline-2-  
yl)-1-imino-methyl]-amino,

or a ~~hydrate, solvate, salt, hydrate of a salt or solvate~~  
~~of a salt, of this compound, or an N-oxide, enantiomer, or~~  
E/Z isomer ~~or tautomer~~ of this compound, ~~or a salt thereof.~~

10. (Currently amended) A compound of formula 1 according  
to claim 3 [[1]], in which the hydrogen atoms in positions  
4a and 10b are in the cis position relative to one another,  
or a ~~hydrate, solvate, salt, hydrate of a salt or solvate~~  
~~of a salt, of this compound, or an N-oxide, enantiomer, or~~  
E/Z isomer ~~or tautomer~~ of this compound, ~~or a salt thereof.~~

11. (Currently amended) A compound of formula 1 according  
to claim 3 [[1]] which has with respect to the positions 4a  
and 10b the configuration shown in formula (1\*):



or a hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or an N-oxide, enantiomer, or E/Z isomer or tautomer of this compound, or a salt thereof.

12. (Canceled)

13. (Currently amended) A pharmaceutical composition comprising one or more compounds of formula 1 according to claim 3 [[1]], or a pharmaceutically acceptable hydrate, solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or a pharmaceutically acceptable N-oxide, enantiomer, or E/Z isomer or tautomer of this compound, or a salt thereof together with a pharmaceutical auxiliary and/or excipient.

14. (Canceled)

15. (Currently amended) A method for treating an illness selected from the group consisting of asthma, bronchitis, COPD, psoriasis and atopic eczema ~~treatable by the administration of a PDE4 inhibitor~~ in a patient comprising administering to said patient in need thereof a therapeutically effective amount of a compound of formula 1 according to claim 3 [[1]], or a pharmaceutically acceptable hydrate, ~~solvate, salt, hydrate of a salt or solvate of a salt, of this compound, or a pharmaceutically~~ acceptable N-oxide, enantiomer, or E/Z isomer ~~or tautomer~~ of this compound, ~~or a salt thereof~~.

16. (Canceled)

17. (Canceled)